CLAIMS

1. A thermosetting powder coating composition comprising a coating forming component which can crosslink and harden by an ester exchange reaction between a carboxylic ester group and a hydroxyl group, and an ester exchange reaction catalyst, wherein said ester exchange reaction catalyst is constituted from an organic sulfonate (X) derived from a carboxylic amide and an organic sulfonic acid having fluorine atoms.

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[Chemical 8]

- The thermosetting powder coating composition as set forth in claim 1, wherein said
 coating forming component contains a polymer which contains two or more hydroxyl
 groups and/or two or more carboxylic ester groups in one molecule.
 - 3. The thermosetting powder coating composition as set forth in claim 1, wherein said coating forming component is a vinyl type polymer.

4. The thermosetting powder coating composition as set forth in any one of claims 1 to 3, wherein said carboxylic amide compound is expressed by a general formula (I)

$$\| R1-C-N (R2) (R3) (I)$$

wherein R1, R2 and R3 independently represents a hydrogen atom or monovalent organic group. R2 and R3 may be bonded to each other to form a divalent group expressed by a

general formula (II):

[Chemical 9]

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$$-C (R4)_{2}CH_{2}-Y-CH_{2}C (R4)_{2}-$$
 (II)

wherein R4 represents a hydrogen atom or methyl group, Y represents any of a direct bond, methylene group, substituted methylene group, and oxygen atom, and R1 and R2 may be bonded to each other to form a substituted or a non-substituted alkylene group having 2 to 11 carbon atoms in total.

- 5. The thermosetting powder coating composition as set forth in any one of claims 1 to
- 3, wherein said carboxylic amide compound contains two or more
- N-alkanoyl-2,2,6,6-tetramethyl piperidine-4-yl groups in one molecule.
 - 6. The thermosetting powder coating composition as set forth in any one of claims 1 to
 - 3, wherein said carboxylic amide compound is N-methyl-2-pyrolidone.
- 7. The thermosetting powder coating composition as set forth in any one of claims 1 to 3, wherein said organic sulfonic acid having fluorine atoms is expressed by a general formula (III):

[Chemical 10]

wherein R5 represents a monovalent organic group having fluorine atoms.

8. The thermosetting powder coating composition as set forth in any one of claims 1 to 3, wherein said organic sulfonate (X) has a structure expressed by a general formula (IV): [Chemical 11]

O O
$$| H^{+} |$$
 $| R1-C-N(R2)(R3) - O-S-R5 (IV)$

wherein each of R1, R2 and R3 independently represents a hydrogen atom or a monovalent organic group, and R2 and R3 may be bonded to each other to form a divalent group expressed by a general formula (II):

[Chemical 12]

$$-C (R4)_2 CH_2 - Y - CH_2 C (R4)_2 -$$
 (II)

wherein R4 represents a hydrogen atom or methyl group, Y represents any of a direct bond, a methylene group, a substituted methylene group, and an oxygen atom, and R1 and R2 may be bonded to each other to form a substituted or a non-substituted alkylene group having carbon atoms of 2 to 11 in total, and R5 represents a monovalent organic group having fluorine atoms.

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9. The thermosetting powder coating composition as set forth in claim 7, wherein said R5 in the general formula (III) is a monovalent organic group expressed by a general formula (V):

[Chemical 13]

 $R6CF_2 - (V)$

wherein R6 represents a hydrogen atom, a fluorine atom, or a substituted or non-substituted hydrocarbon group having 1 to 5 carbon atoms.

5 10. A hardened material obtained by applying the thermosetting powder coating composition as set forth in any one of claims 1 to 3 to a base material, and crosslinking and hardening the applied thermosetting powder coating composition.